CLAIMS

WHAT IS CLAIMED:

1. A method, comprising:

forming a layer of photoresist above a process layer formed above a first semiconducting substrate;

determining a position of a top surface of said layer of photoresist;

positioning a focal plane of a light source adjacent said layer of photoresist based upon said determined position; and

energizing said light source.

2. The method of claim 1, wherein determining the position of the top surface of said layer of photoresist comprises sensing a thickness of the layer of photoresist and positioning the focal plane of the light source comprises positioning the focal plane of the light source adjacent said layer of photoresist based upon said determined thickness.

3. The method of claim 2, wherein sensing the thickness of the layer of photoresist comprises determining the thickness of the layer of photoresist at one or more spaced apart locations.

4. The method of claim 2, wherein sensing the thickness of the layer of photoresist comprises determining the thickness of the layer of photoresist at a plurality of locations and averaging the determined thicknesses.

5. The method of claim 2, wherein sensing the thickness of the layer of photoresist comprises determining the thickness of the layer of photoresist at a plurality of locations and applying a least squares method to determine an approximate thicknesses of the layer of photoresist.

6. The method of claim 1, wherein positioning the focal plane of the light source adjacent said first layer of photoresist based upon said determined position comprises moving the semiconducting substrate to position the focal plane of the light source adjacent the first layer of photoresist.

7. The method of claim 1, wherein positioning the focal plane of the light source adjacent said first layer of photoresist based upon said determined position comprises moving the light source to position the focal plane of the light source adjacent the first layer of photoresist.

8. The method of claim 1, wherein determining the position of the top surface of said layer of photoresist comprises sensing a thickness of the layer of photoresist and an underlying layer, and positioning the focal plane of the light source comprises positioning the focal plane of the light source adjacent said layer of photoresist based upon said determined thickness of said layer of photoresist and the underlying layer.

9. The method of claim 8, wherein sensing the thickness of the layer of photoresist and the underlying layer comprises sensing the collective thickness of the layer of photoresist and the underlying layer.

10. The method of claim 1, wherein determining the position of the top surface of said layer of photoresist comprises sensing a thickness of the layer of photoresist, an underlying layer, and a substrate, and positioning the focal plane of the light source comprises positioning the focal plane of the light source adjacent said layer of photoresist based upon said determined thickness of said layer of photoresist, the underlying layer, and the substrate.

11. The method of claim 10, wherein sensing the thickness of the layer of photoresist, the underlying layer, and the substrate comprises sensing the collective thickness of the layer of photoresist, the underlying layer, and the substrate.

12. An apparatus, comprising:

means for forming a layer of photoresist above a process layer formed above a first semiconducting substrate;

means for determining a position of a top surface of said layer of photoresist;

means for positioning a focal plane of a light source adjacent said first layer of photoresist based upon said determined position; and

means for energizing said light source.

13. A system, comprising:

a metrology tool for sensing a thickness of a first layer of photoresist formed above a first semiconducting substrate;

a controller that determines a position of a top surface of said layer of photoresist based upon said sensed thickness of said first layer of photoresist, and is

capable of delivering a control signal indicating the position of the top surface of the layer of photoresist; and

a stepper capable of moving one of a light source and the substrate to position a focal plane of the light source at about the determined position of the top surface of the layer of photoresist in response to receiving the control signal.

14. The apparatus of claim 13, wherein the metrology tool senses a thickness of the layer of photoresist, and the controller determines the position of the top surface of said layer of photoresist based on the sensed thickness of the layer of photoresist.

15. The apparatus of claim 14, wherein the metrology tool senses the thickness of the layer of photoresist at one location and the controller determines the position of the top surface of said layer of photoresist based on the sensed thickness of the layer of photoresist.

16. The apparatus of claim 14, wherein the metrology tool senses the thickness of the layer of photoresist at a plurality of locations and the controller determines the position of the top surface of said layer of photoresist based on an average of the sensed thicknesses.

17. The apparatus of claim 14, wherein the metrology tool senses the thickness of the layer of photoresist at a plurality of locations, and the controller determines the position of the top surface of said layer of photoresist based on a least squares method applied to the plurality of sensed thicknesses.

18. The apparatus of claim 13, wherein the stepper positions the focal plane of the light source adjacent said layer of photoresist by moving the semiconducting substrate to position the focal plane of the light source adjacent the layer of photoresist.

19. The apparatus of claim 13, wherein the stepper positions the focal plane of the light source adjacent said layer of photoresist by moving the light source to position the focal plane of the light source adjacent the layer of photoresist.

20. The apparatus of claim 13, wherein the metrology tool senses a thickness of the layer of photoresist and an underlying layer, and the controller determines the position of the top surface of said layer of photoresist based on the sensed thickness of the layer of photoresist and the underlying layer.

21. The apparatus of claim 20, wherein the metrology tool senses the collective thickness of the layer of photoresist and the underlying layer.

22. The apparatus of claim 13, wherein the metrology tool senses a thickness of the layer of photoresist, an underlying layer, and a substrate, and the controller determines the position of the top surface of said layer of photoresist based on the sensed thickness of the layer of photoresist, the underlying layer, and the substrate.

23. The apparatus of claim 20, wherein the metrology tool senses the collective thickness of the layer of photoresist, the underlying layer, and the substrate.

24. A system, comprising:

a controller capable of determining a position of a top surface of a layer of photoresist formed above a first semiconducting substrate; and

a stepper capable of moving one of a light source and the substrate to position a focal plane of the light source at about the determined position of the top surface of the layer of photoresist in response to receiving the control signal.